



SURFICIAL GEOLOGY

QUATERNARY

Glacier: a mass of ice formed from compacted snow in an area where snow accumulation exceeds melting and sublimation.

POST-FRASER GLACIATION

Organic deposits: peat and pebbles, commonly including organic materials and debris, deposited by glacial meltwater; generally well sorted except in alluvial fans and loessic deposits.

Alluvial (Fluvial) Deposits: gravel and sand with minor silt and clay, deposited by streams; commonly stratified, generally well sorted except in alluvial fans.

Fluvio-deltaic sediments: sand and silt, commonly including organic materials and debris, deposited by glacial meltwater, by glacial or fluvial processes; 1 to 10 m thick; occurring in river levees, prior to floods.

Terrace sediments: stratified sand and gravel overlying a veneer of sand and silt 2 to 10 m thick; forming terraces well above flood level.

Deltaic sediments: stratified sand and gravel underlain by silt and clay; generally 2 to 15 m thick; forming fans at the toe of the slope.

Fan sediments: poorly sorted sand and gravel, with clastich; generally 2 to 15 m thick; forming fans at the toe of the slope.

Colluvial deposits: sand and gravel deposited by surface mass-wasting processes, ranging from slope wash to rock fall; composition dependent on source materials.

Landslide debris: mostly unconsolidated sediments, with texture dependent on source materials; generally 1 to 10 m thick, but may be much thicker in near the head of valley floors. Where possible, landslides were identified by type: Ch-cl, debris flow deposit; Ch-ds, debris avalanche deposit; Ch-s, talus deposit; Ch-t, talus cone. Landslides may be adjacent to each other where contacts meet; these represent separate events.

Slope colluvium: rock fragments in a matrix of boulders, gravel, sand, silt, and minor clay; 1 to 10 m thick; formed by bedrock weathering or reworking of unconsolidated slope deposits; may be associated with talus cones. Slope colluvium may be adjacent to each other where contacts meet; these represent separate events.

Talus: talus and block accumulations at the bottom of steep (>40°) slopes; 1 to 10 m thick.

Colluvial veneer: rock fragments in a matrix of boulders, gravel, sand, silt; usually 1 to 10 m thick; formed by bedrock weathering or reworking of unconsolidated deposits.

Fraser Glaciation (Late Wisconsinan)

Proglacial and Glacial Environment

Glaciocluval Deposits: sand and gravel, well to poorly sorted, and commonly stratified; deposited by glacial meltwater; bedding disrupted locally following the formation of the terrace.

Bevelled talus: sand and gravel, stratified to massive; 1 to 10 m thick; forming hummocky surfaces.

Glaciocluval terrace sediments: sand and gravel, stratified to massive; generally 1 to 10 m thick; forming hummocky surfaces.

Glaciocluval blanket: sand and gravel, stratified to massive; generally 1 to 10 m thick; sediment cover is continuous, but the underlying morphology is visible; commonly located near the mouth of meltwater channels.

Proglacial deltaic sediments: sand and gravel with minor silt and clay; 5 to 10 m thick; deposited by glacial meltwater; overlying glaciocluval silt and clay; forming, in part, slightly inclined surfaces.

Glaciocluval veneer: sand and gravel, well to poorly sorted, and commonly stratified; supporting ice; 1 to 3 m thick.

Till: Poorly sorted diamict consisting of cobbles, cobbles, and boulders in a sandy to silty matrix; may contain large blocks of bedrock; may contain iron-stained streaks; small units of glaciocluval sediments, especially in valley bottoms and near the mouths and banks of meltwater channels; till surface is commonly rilled on steep slopes.

Till blanket: continuous till cover with few bedrock outcrops; 1 to 3 m thick on average; conforming to and locally obscuring morphology of underlying units.

Till veneer: till cover with abundant bedrock outcrops; 1 m thick on average; reflecting topography of underlying bedrock.

Pre-glaciation

Bedrock: sedimentary, low-grade metamorphic, volcanic, and intrusive rocks of Jurassic to Quaternary age; including, in places, till veneer, drift, and colluvium.

Geological boundary (defined, inferred)

Limit of mapping

Escarpment

Large meltwater channel

Small meltwater channel

Sand and gravel pit (large, small)

Travel directions of landslides, mainly debris flows and snow avalanches

Crest

ACKNOWLEDGEMENTS

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TERRAIN RESOURCE INFORMATION MANAGEMENT (TRIM) AND INDEX TO ALLEGORIC GEOLOGIC SURVEY OF CANADA MAPS

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TERRAIN RESOURCE INFORMATION MANAGEMENT (TRIM) AND INDEX TO ALLEGORIC GEOLOGIC SURVEY OF CANADA MAPS

**SURFICIAL GEOLOGY AND LANDSLIDE INVENTORY
OF THE UPPER SEA TO SKY CORRIDOR**
BRITISH COLUMBIA

OPEN FILE 0324
Scale 1:50 000/Echelle 1/50 000
Digital cartography by M. Methot, Data Dissemination Division (DD)
Completion and interpretation was carried out using British Columbia 1994 colour serial photography series 30BCC94, at 1:15,000 scale.
Geology by A. Blais-Stevens, 2004–2006

Universal Transverse Mercator Projection
North American Datum 1983
© Her Majesty the Queen in Right of Canada 2008
Projection transversale universelle de Mercator
Système de référence géodésique nord-américain, 1983
© Sa Majesté la Reine du chef du Canada 2008

Elevations in metres above mean sea level
Contour interval 20 m

Any revision or additional geological information known to the user
would be welcomed by the Geological Survey of Canada

Digital base map from Terrain Resource Information (TRIM), modified by DDO

Shaded relief image prepared by DDO, derived from the digital elevation model, based on TRIM contour and elevation data
Illumination: azimuth 315°, altitude 45°, vertical factor 1x

Magnetic declination 2008, 18°10' E, decreasing 13.0' annually.

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